

I. Introduction to A & P Definitions:

- A. Anatomy vs. Physiology
- B. Subdivisions of A & P - review roots, prefixes, & suffixes
- C. Structural Organization - Form Fits Function
  - 1. Structural organization is characteristic of the body & all of its parts (i.e. The whole is the sum of all its parts.)
  - 2. **Describe and give example of the different levels of organization of the body.**
  - 3. **List and give the functions of the 11 organ systems of the body.**
  - 4. Body structures change gradually.
    - a. develop to young adult
    - b. age & atrophy
    - c. Physiologic changes vs. pathologic changes

II. Characteristics of Life

- A. **List the six characteristics and give examples of how they apply to the human organism.**
- B. Differentiation (cell) vs. morphogenesis (tissue/ organ/ organism)

III. HOMEOSTASIS - condition of relative consistency within the body

- A. Define: variable, set point, & normal range
- B. Homeostasis is present when the body's internal environment meets 3 requirements:
  - 1. Proper concentration of water, gases, and ions
  - 2. Maintains normal temperature
  - 3. Has sufficient volume to maintain cellular health
- C. Regulation of homeostasis
  - 1. The nervous system and the endocrine system - help maintain and restore equilibrium
  - 2. Operate by negative or positive feedback
    - a. Stimulus – internal or external
    - b. Effector receptor (sensory)
    - c. Control Center (NS &/or ES) **Describe differences.**
    - d. Effector receptor (muscles & glands)
    - e. Respond or result (+ or -)
  - 3. **Explain and give examples of negative and positive feedback.**

IV. Body Plan Terminology - universal descriptive words used to refer to regions or parts of the body.

- A. Etymology - Knowing where words are derived from.
- B. Body Positions
  - 1. Anatomic Position
  - 2. Supine
  - 3. Prone
- C. Directional Terms: Refer to Table 1.1
- D. Body Parts and Regions: Refer to Fig. 1.11, 1.12 (4/9)
  - Describe the 9 region method for subdividing the abdomen and list specific organs that resided in those regions.**
- E. Planes Refer to Fig. 1.13
  - 1. Sagittal; longitude - midsagittal vs. parasagittal
  - 2. Frontal; coronal
  - 3. Transverse; horizontal
  - 4. Oblique
- F. Body Cavities (Refer to Fig. 1.15) 3 Major Trunk Cavities
  - 1. Thoracic - surrounded by the ribs and chest muscles
    - a. Diaphragm
    - b. Mediastinum (heart, *pericardium*, thymus, trachea, esophagus, lymph nodes, b.v. & nn.)
  - 2. Abdominal - stomach, intestines, liver, spleen, pancreas, and kidneys
  - 3. Pelvic - encases by bones - UB, part of the LI (colon), reproductive organs, and the rectum
  - 4. Other cavities: oral, nasal, orbital, tympanic, synovial
- G. Serous Membranes: Fig. 1.16, 1.17
  - 1. Visceral vs. parietal = serous fluid reduces friction
  - 2. Pericardial, pleural, & peritoneal cavities

3. Mesenteries = anchors organs to body wall and provides a pathway for nn. & b.v.
4. Retroperitoneal organs are covered by parietal layer - kidneys, adrenal glands, pts of intestines, and UB.

Don't forget about **Clinical Connections, Disorders: Homeostatic Imbalance & Medical Terminology** located in all chapters.

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*This is only a general outline. There may be material that has been discussed in lecture that is not included in this outline and there may be material on this outline that has not been discussed in lecture. Any material discussed in lecture or listed in this outline is "fair game" for the test.*